

AMENDMENTS TO THE CLAIMS:

Amend the claims as follows.

1. (Currently Amended) A method for the purification of a cytochrome P450, wherein said method comprises:

(a) expressing in a host cell culture a cytochrome P450 molecule;

(b) recovering said cells from said culture and suspending said cells in a first salt buffer having a salt concentration of from 200 to 1000 mM and a conductivity of from 12 to 110 mS/cm;

(c) lysing said cells in said first salt buffer and removing cell debris to provide a high-salt lysate;

(d) adding to said lysate a detergent to provide a high-salt-detergent lysate; and

(e) recovering said P450 from said lysate;

provided that when said first salt buffer has a concentration of from 200 to 1000mM, the P450 is not a human 2C9 P450 having position 220 substituted by proline.

2. (Currently Amended) The method of claim 1 wherein the first salt buffer has a salt concentration of about 500 mM \pm 50 mM.

3. (Previously Presented)The method of claim 1 wherein the detergent is added

at 0.015 to 1.2% v/v.

4. (Currently Amended) The method of claim 1 wherein step (e) is performed by:

(e(i)) binding said P450 to an affinity support;

(e(ii)) rinsing said support in a high-salt-detergent wash having a salt concentration of from 200 to 1000 mM and a conductivity of from 12 to 110 mS/cm;

(e(iii)) removing said P450 in a high-salt-detergent buffer having a salt concentration of from 200 to 1000 mM and a conductivity of from 12 to 110 mS/cm to provide a P450-high-salt-detergent preparation; and

(f) rapidly desalting the preparation such that the P450 is separated from the high salt concentration within 30 minutes to provide a P450-low-salt preparation.

5. (Original) The method of claim 4 wherein step (f) is performed by removing salt from said preparation by size-exclusion chromatography.

6. (Previously Presented) The method of claim 1 wherein the P450 carries a polyhistidine tag.

7. (Previously Presented) The method of claim 1 wherein the P450 is a member of the CYP1, 2, 3 or 4 family.

8. (Original) The method of claim 7 wherein the P450 is a CYP2 family member.

9. (Original) The method of claim 8 wherein the P450 is 2C9 or 2C19.

10. (Currently Amended) The method of claim 1 wherein the P450 in its native form comprises an N-terminal membrane inserting element, such that the P450 is selected from the group consisting of SEQ ID NOs: 2, 4, 6 and 8 ~~and wherein said inserting element is deleted.~~

11. (Currently Amended) The method of claim 10 wherein the N-terminal sequence of said P450 comprises, in place of the N-terminal membrane inserting element, a sequence MAKKTSSKGR (SEQ ID NO:10) such that the P450 is selected from the group consisting of SEQ ID NOs: 2, 4 and 6 or MAYGTHSHGLFKK (SEQ ID NO:11) such that the P450 is SEQ ID NO: 8.

12. (Original) The method of claim 11 wherein said P450 is of SEQ ID NO:2, 4, 6 or 8.

13. (Currently Amended) The method of claim 1 wherein said P450 is selected from the group of SEQ ID NO: 2, 4, 6 and 8 ~~P450-2C9, P450-2C19, P450-2C19-1B, P450-2D6 and P450-3A4~~ wherein said method further comprises ~~comprising~~ crystallizing the P450.

Claims 14-20. (Canceled)

21. (Currently Amended) The method of claim 2 wherein said first buffer has a conductivity of from 25 to 35 mS/cm.

22. (Currently Amended) The method of claim 1 wherein the first buffer

comprises a salt selected from the group consisting of an alkali metal, alkaline earth metal, ammonium, ferric, ferrous and transition metal salt of a halide, acetate, formate, nitrate, sulfate, tartrate, citrate or phosphate.

23. (Previously Presented) The method of claim 21 wherein the salt is selected from the group consisting of sodium fluoride, potassium fluoride, ammonium fluoride, ammonium chloride, lithium chloride, magnesium chloride, potassium chloride, sodium chloride, potassium bromide, ammonium nitrate, lithium nitrate, potassium nitrate, sodium nitrate, ammonium sulfate, potassium sulfate, lithium sulfate, sodium sulfate, potassium dihydrogen phosphate, ferric chloride, calcium chloride, magnesium nitrate, magnesium sulfate, sodium dihydrogen phosphate, di-sodium hydrogen phosphate, di-potassium hydrogen phosphate, ammonium dihydrogen phosphate, di-ammonium hydrogen phosphate, nickel chloride, and ammonium iodide.

24. (New) The method of claim 4 wherein the step of rapidly desalting the preparation is within 10 minutes.